Conducted 239 Secret, 3 9 17 By George C. Wilson

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The Army disclosed yesterday that it secretly conducted 239 germ warfare tests in open air between 1949 and 1969, in some tests releasing live but supposedly harmless microscope "bugs" at Washington's Greyhound bus terminal and National Airport as part of the experiment.

The idea, according to a two-volume report the Army gave to the Senate health subcommittee yesterday, was to learn how to wage biological warfare and defend against it.

The Washington tests started in 1949 at an undisclosed location and were conducted again in May, 1965, at the bus terminal and aipport.

Washington was one of five cities where the Army released simulated lethal germs in public places. Other cities where the public served as unknowing guinea pigs were New York, San Francisco, Key West and Panama City, Fla.

All told, the Army listed 27 times that it tested simulated toxins on public property, including releasing spores in two tunnels on a stretch of Pennsylvania Turnpike.

In addition to those experiments in public places, the Army secretly used military personnel and their families for open air experiments by spraying simulated germs into the air at a number of bases, including Fort Detrick, Md.;

Open-Air Germ Warfare Tests

Fort Belvoir, Va.; and the Marine training school at Quantico, Va.

The Army said in its report that the tests were "essential" to "substantiate theories and fill knowledge gaps and to determine vulner-ability to attack." The live bacteria the Army employed were deemed harmless at the time, the report said.

But Sen. Richard S. Schweiker (R-Pa.) told Army witnesses at the Senate subcommittee hearing yesterday that "it is very risky indeed to assume that any living organism, reduced to germ warfare size and released in a populated area, is ever safe."

In the 1950 San Francisco tests, the bacteria

Seriatta Marcescens was used. Medical researchers suspect it may have caused 11 cases of pneumonia in the Bay area, including one death.

The Army report acknowledges that the service recognized in 1969 that the germ should not be used in experiments because large doses of it could produce disease.

Besides the suspicions of illnesses caused by experiments outside Army laboratories, the Army listed yesterday the casualties among those who worked directly with the micro-organisms. The Army said three laboratory workers at Fort Detrick died from diseases con-

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tracted in the 1950s and 1960s, as had been reported previously.

Another 504 workers connected with biological warfare activities at Ft. Detrick, Dugway Proving Ground and the Deseret Test Center in Utah and the Pine Bluff Arsenal in Arkansas suffered infections, according to the Army's count.

The Army released its censored report, believed the most complete official version of this nation's biological warfare effort, as Chairman Edward M. Kennedy (D-Mass.) of the Senate health subcommittee convened a hearing on the subject.

Kennedy released a summary of a separate Central Intelligency Agency report which showed that the Office of Strategic Services, predecessor of the CIA, used germ warfare against the head of Nazi Germany's Reichbark dwing World Wer VI.

bank during World War II to prevent him from attending an economic meeting.

In what is believed the first official acknowledgement that the United States engaged in germ warfare, OSS agents managed to give Hjalmar Schact, Nazi Germany's leading banker, food poisoning. The CIA summary did not supply the date or how the poison was administered.

The Army, in its two-volume report, traced the history of the U.S. biological warfare program from 1942 when President Roosevelt started it to 1969 when President Nixon renounced the use of biological weapons. The military's effort since then, according to the Army, has been confined to studying defensive measures against biological warfare.

The Army report said testing of bilogical warfare agents rose sharply after May, 1961, when then Defense Secretary Robert S. McNamara ordered the Joint Chiefs of Staff to "evaluate the potentialities" of both biological and chemical warfare, "considering all possible applications."

The Joint Chiefs, the report said, estimated it would cost \$4 billion to obtain "McNamara's complete spectrum" of biological and chemical warfare capability.

The Pentagon's research director at the time, Harold Brown, who is now Secretary of Defense, "strongly concurred in the JCS view that these weapons had great potential," according to the report which mentioned Brown by position but not by name.

McNamara accepted the Joint Chiefs' recommendations as modified by Brown's office, the report said, and a detailed chemical and biological warfare program was laid down. "Overall," the report continued, "the project resulted in large increases in U.S. Army BW [biological warfare] programs."

In releasing the two-volume report, Army Secretary Clifford L. Alexander said that the Army's biological war-

fare program "from its inception was characterized by continuing in-depth review and participation by the most eminent scientists, medical consultants, industrial experts and government officials."

Brig. Gen. William S. Augerson, Army assistant surgeon general, told the Senate subcommittee that the Army sometimes used human volunteers for biological experiments but protected them to a degree which "equalled or exceeded" civilian safeguards. "We know of no death or permanent injury in any volunteer in this program," Augerson said.